

Short Communications

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Nest, Egg, and Nesting Biology of the Snowy Cotinga (*Carpodectes nitidus*)

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ABSTRACT.—I describe the nest, egg, and nesting behavior of the Snowy Cotinga (*Carpodectes nitidus*) in La Selva Biological Station, Costa Rica. The nest was placed 7.5 m high on a fork formed by four branches of a leafless tree. The nest was a simple platform made of dry tendrils and lichens. It contained a single large egg, which took at least 27 days to hatch. The nest and chick were predated the day after hatching. Both nest and egg characteristics resemble those of other cotinga species. Received 29 January 2002, accepted 22 August 2002.

Although Neotropical cotingas are conspicuous, their breeding behavior is very poorly known. The genus *Carpodectes* is no exception (Snow 1982). The Snowy Cotinga (*Carpodectes nitidus*) is a canopy dweller inhabiting wet forest on the Caribbean lowlands of Central America, from northern Honduras to Panama (Ridgely and Gwynne 1989, Stiles and Skutch 1989). In Costa Rica, the Snowy Cotinga is considered common to rare along its geographical range, which extends from the northeastern slope of the Guanacaste mountain range to the Panama border. The scarce information concerning its nesting was obtained in March 1891, when C. F. Underwood collected a nestling from its nest in Costa Rica (Snow 1982). Another nest was found, also in Costa Rica, in April 1999 (Klebauskas and Pacheco 2000). This nest was a small cup placed in a three-pronged fork, 10–12 m up in a leafless tree. It contained at least one nestling. Here I describe the nest and the first known egg of the Snowy Cotinga, with some information on its nesting behavior, recorded from 21 April to 4 May 2001.

The nest was found by R. G. Campos at La Selva Biological Station (10° 26' N, 84° 00' W, 65 m elevation), in Sarapiquí, Heredia, Costa Rica. The nest was placed at the junction of four branches on a sandbox tree (*Hura*

crepitans, Euphorbiaceae) at 7.5 m above the ground. The sandbox tree is a deciduous, shade intolerant species, inhabiting tropical dry and tropical moist life zones (Hartshorn 1983). The tree was about 11 m tall with a 25-cm dbh. When the nest was built and the egg laid (late March to early April), it was completely leafless. The nest with a single egg was discovered on 7 April 2001. The area around the nest was dominated by young second growth, including pastures and scattered medium-sized trees (10–20 m): *Cecropia* spp., *Spondias mombin*, palms, and a few tall trees. The tree containing the nest was very exposed, since it was one of the tallest and it was only 10 m away from the main entrance road to the station. I first checked the nest on 21 April 2001; by then the tree had small young leaves and leaf buds. I made the observations from a ladder placed on top of a van; I was about 4 m high and 10 m from the nest.

The nest was a small cup, which barely allowed the female space upon which to sit (Fig. 1). The nest was made of small dry twigs and dry woody tendrils with some lichens. Its structure was simple, and the few materials used seemed loose, apparently held together by the branches upon which it was placed. I estimated the size of the nest and egg in relation to the female's body, using pictures taken from the nesting tree and a female specimen collected at the same location (UCR # 1567). The nest was about 7–10 cm wide at its maximum diameter and 3 cm in height. Although it was not possible to estimate the depth of the inner cup, it was shallow enough to allow observation of the egg from ground level.

I estimated the egg to be about 25.4 mm long, and about 20 mm wide (Fig. 2). Because only half of the egg was seen, it was not possible to make an accurate estimate of its width. It was possible, however, to see that its shape was oval. The color was a very light greyish-white, with

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FIG. 1. Female Snowy Cotinga (*Carpodectes nitidus*) at the nest, La Selva Biological Station, Costa Rica, 27 April 2001. Photograph by M. Saborío.

light brown blotches concentrated at the blunt end of the egg (wreathed).

I observed the nest on 25, 27, and 28 April 2001, while the female was incubating. During 17 hours of observation, she left the nest seven times; the mean length of her periods off the nest was $32.5 \text{ min} \pm 8.8 \text{ SD}$, 19% of the observation time. Four of these exits occurred between 8:53 and 10:00 CST. While on the nest, the female changed position frequently, rolling the egg a mean of every $7.1 \text{ min} \pm 4.3 \text{ SD}$ ($n = 22$). Usually during the hottest part of the day, the female stood on the nest shading the egg (without making contact with it), positioning her back to the sun. I did not observe any interaction with other indi-

viduals of the same or other species that flew into or near the nest tree. I observed male Snowy Cotingas within about 25 m of the nesting tree, but none of them approached the nest and I did not hear any vocalizations during the observation period.

The chick hatched on 3 May 2001 (J. Alvarado pers. comm.). The following day the nest and nestling had disappeared, probably predated. The egg took at least 27 days to hatch, a relatively long time for a passerine of this size, although similar to the incubation periods of other cotingas (Snow 1982).

The characteristics of the nest were similar to those of some other cotingas (e.g., white-winged cotingas, *Xipholena* spp.) and pihás



FIG. 2. Nest and egg of the Snowy Cotinga (*Carpodectes nitidus*), La Selva Biological Station, Costa Rica, 27 April 2001. Photograph by M. Saborío.

(*Lipaugus* spp.; Skutch 1969, Sick 1993). Similarities in nest shape and material, as well as egg shape and color patterns, between the Snowy Cotinga and Pompadour Cotinga (*X. punicea*), support the hypothesis that *Xipholena* is most closely related to *Carpodectes*, as suggested by Snow (1982).

The observations herein and the nest description of Klebauskas and Pacheco (2000) suggest that the Snowy Cotinga may prefer to nest in leafless trees located in semi-open habitats. Snow (1976) suggested that nests built in trees outside the forest, and isolated from other trees, may be less vulnerable to predation than those within the closed forest. These observations seem contrary to the general rule that nests of most cotingas are highly inconspicuous (Snow 1982).

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